

DT - Progression map

We follow the National Curriculum. We deliver subjects through the Harmony Project which covers all of the National Curriculum objectives. It is a knowledge and skills based curriculum. The skills repeat – so if a child is absent they have the opportunity to cover the learning again. The skills build over time. The knowledge taught to children is tailored to the local context.

Units are shown in the term they are taught Autumn Spring Summer

Additional optional lessons which link and add to the progression

| KEY CONCEPTS | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| Research, imagine and innovate | <p>Choose materials based on properties for our creation</p> <p>Develop their own ideas and then decide which materials to use to express them</p> <p>Work together to develop and realise creative ideas Sp2</p> | <p>Know that design is driven by a purpose</p> <p style="color: blue;">What mask and costume will I design for Superhero Day?</p> <p style="color: blue;">Who likes to play with puppets? Who will I make a puppet for?</p> <p style="color: green;">How do birds get their food in winter?</p> <p style="color: green;">Which birds live in our local area and how should this affect a bird feeder design?</p> <p style="color: orange;">What musical instruments can recreate the sounds of the seaside?</p> <p style="color: orange;">Why am I making my</p> | <p>Know that design is driven by a real purpose</p> <p style="color: green;">What do 'healthy vehicles' look like?</p> <p style="color: green;">What will I need to make my healthy Vehicle?</p> <p style="color: orange;">What do shopping bag designs look like?</p> <p style="color: orange;">What are the features of different bee habitats?</p> | <p>Know that designs should consider aesthetics</p> <p style="color: blue;">What do rainforest animals look like?</p> | <p>Know that designs should consider aesthetics and function</p> <p style="color: green;">What is a wind turbine and how does one work?</p> <p style="color: orange;">How did a shaduf support life in Ancient Egypt?</p> | <p>Know that there can be a tension between aesthetics and function</p> <p style="color: green;">What features made Viking longboats Effective?</p> <p style="color: green;">What features should our clean energy mode of transport have?</p> <p style="color: orange;">How are different things made from fabric constructed?</p> | <p>Know that there can be a tension between aesthetics and function and both should be considered in the design process</p> <p style="color: blue;">What do WWII medals look like?</p> |

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| | | instrument and who is it for? | | | | | |
| | | Be able to generate a design What will my musical instrument look like? | Be able to generate a design How will I design a healthy vehicle? Which piece of used fabric will I reuse for my design? What will I include in my design for a bee habitat? | Be able to generate more than one design Design more than one felt rainforest animal | Be able to generate more than one design What is the best design for the base of a wind turbine? | Be able to generate a range of designs Design more than one energy vehicle | Be able to generate a range of designs Which colours will I choose to create my 'peace' brooch? |
| | | Be able to explore ways of constructing parts of a design How are different puppets made? | Be able to explore ways of constructing parts of a design How will my healthy vehicle move? | Be able to explore ways of constructing a design Felt rainforest animals | Be able to explore ways of constructing a design Wind turbine | Be able to use modelling and testing to improve design What should we consider to ensure our longboats are sturdy and reliable? | Be able to use modelling and testing to improve design How will I use different stitches to create patterns? |
| Plan, build, test | Use different techniques for join materials with glue A1 Choose resources needed for own creations a2 Experiment with ways of joining fabric a2 Shape and assemble in different media a2 | Be able to list materials and tools needed for production Which natural or recycled materials will I use in my puppet Design? Which natural materials will I use in my design? How will I make my | Be able to list materials and tools needed for production What materials and joining techniques will I use? | Be able to list materials, tools and techniques needed for production What ingredients will I include in my banana Smoothie? List materials needed to make chosen felt rainforest animal | Be able to list materials, tools, mechanisms and techniques needed for production What materials will I use to create the rotary blades of a wind turbine? What materials will I use to design a shaduf? | Be able to produce a step by step plan for production What materials did Vikings use to build their longboats, and how can we recreate them on a smaller scale? | Be able to produce a step by step plan for production What are brooches made of and what materials will I need? |

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| | <p>Handles tools with increasing control and intention Sp1</p> <p>Safely use and explore complex tools to attach and join Sp1</p> <p>Explore materials to express ideas in 2D and 3D Sp1</p> <p>*Also see block building skills builders</p> | <p>musical instrument out of sustainable materials?</p> | | | <p>What materials will I use to build a pyramid?</p> <p>What skills will we require to make a mini roundhouse?</p> <p>What ingredients do I need to make oat and honey cakes with dried fruit?</p> <p>What ingredients do I need to make leek and pea soup?</p> <p>What ingredients do I need to make herby Anglo-Saxon stew?</p> <p>What ingredients do I need to make Anglo-Saxon sweet or savoury pancakes?</p> | | |
| | | <p>Be able to use tools and techniques following guidance from an adult</p> <p>Which techniques will I use to create my Puppet?</p> <p>What techniques will I use to make my bird feeder?</p> | <p>Be able to use tools and techniques following guidance from an adult</p> <p>How will I make my design using re-used material?</p> <p>What skills do I need</p> | <p>Be able to use appropriate tools and techniques independently</p> <p>How will I slice each fruit for a seasonal fruit kebab?</p> <p>How can I ensure I use good hygiene when</p> | <p>Be able to use appropriate tools and techniques independently</p> <p>What techniques will I use to make Anglo-Saxon bread using wheat and rye?</p> <p>What techniques will I use to make Anglo-</p> | <p>Be able to select appropriate tools and techniques to make a product</p> <p>What materials did Vikings use to build their longboats, and how can we recreate them on a smaller scale?</p> | <p>Be able to select appropriate tools and techniques to make a product</p> <p>How will I use different stitches to create patterns?</p> |

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| | | | to learn to be able to make my meal next week? | making my healthy meal? Sew a felt rainforest animal | Saxon bread using oat and barley? How can I use tools to construct the prototype of my wind turbine? | | |
| Test and evaluate | <p>Evaluate their own and others work</p> <p>Share their creations, explaining the process they have used Sum 2</p> <p>Return to and build on their previous learning</p> <p>Refine ideas and develop ability to represent them</p> | <p>Be able to compare their design and product explaining any differences</p> <p>Is my puppet a good toy to play with?</p> <p>How would I improve my puppet design?</p> <p>How do birds' beaks affect how they eat?</p> <p>How would I improve my design?</p> <p>How effective is my musical instrument?</p> <p>How will I improve my musical instrument?</p> | <p>Be able to compare their design and product explaining any differences</p> <p>How well does my healthy vehicle move?</p> <p>How could I improve my healthy vehicle?</p> <p>How can I present my design project to others?</p> <p>How well can I follow my design to create a bee habitat?</p> <p>How successful was my design and who will take it shopping?</p> <p>How helpful was my design? What am I pleased with in my finished bee habitat?</p> | <p>Be able to compare their design and product explaining any differences and suggesting improvements</p> <p>Which recipe would I like to improve and How?</p> <p>Does my felt rainforest animal look like the design?</p> | <p>Be able to compare their design and product explaining any differences and suggesting improvements</p> <p>How can I refine the design of the rotary blades to catch the wind more effectively?</p> <p>How will I evaluate the effectiveness of my wind turbine?</p> | <p>Be able to evaluate the success of a product against its original design and suggest improvements</p> <p>How can we accurately test the performance of our clean energy Prototypes?</p> <p>How can we improve our designs?</p> <p>How will I showcase and evaluate my finished upcycled design?</p> | <p>Be able to evaluate the success of a product against its original design and suggest improvements</p> <p>How will I use feedback to improve my final product?</p> |

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| | | | Who will eat my healthy dish and how will they evaluate it? | | | | |
| Food technology and nutrition | Know of interesting ways to decorate food Sp2 | Be able to combine ingredients to make a food item Pizza Express | Be able to combine ingredients to make a food item What seasonal foods can we obtain locally and what do they taste like? What seasonal food would I like to use in my meal and who is it for? What other recipes are similar to mine that I can research? | Be able to design, make and test combinations of food items How will I create my own herby bread recipe? How many minutes does it take to boil or poach or fry an egg? Where do butter and cheese come from and how are they made? | Be able to design, make and test combinations of food items What foods did the Ancient Egyptians eat and how was it made? What ingredients will I include in my Ancient Egyptian bread? | Be able to make a dish considering taste and nutrition Tudor banquet | Be able to make a dish considering taste, nutrition and aesthetics Harvest locally grown vegetables to make seasonal soups Make Harvest Festival seasonal soups |
| Sewing | | What mask and costume will I design for Superhero Day? Which techniques will I use to create my Puppet? | How can I learn a simple sewing technique? How can I learn to tie a knot to attach a handle to my bag? | Sew a felt rainforest animal | What colours will I choose to sew my Tudor coin purse? | How can you turn an old piece of clothing into something new? How can I improve my sewing skills? What stitches will I use to create an upcycled design? How will I decorate my upcycled design? | What type of stitch will I use to connect layers of fabric? How will I use different stitches to create patterns? What appliqué decoration will I add to the design of my brooch? |

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| Mechanisms | | With some support, begin to explore and use simple mechanisms. sliders in moving pictures, | With some independence, explore and use winding mechanisms. Begin to incorporate wheels and axles into their products. | Begin to develop an understanding that mechanical systems such as levers can create movement. Begin to incorporate levers - rainforest animals that moved in two ways | What mechanical systems did the Ancient Egyptians use to build pyramids? Pulleys | Begin to understand how mechanical systems such as cams create movement. Design and make a clean energy vehicle that incorporates a cam mechanism. | |
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